

**Before the  
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION  
and  
RURAL UTILITIES SERVICE**

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Broadband Incentives Program and )	
Broadband Technology Opportunities Program )	Docket No. 0907141137-91375-05
Joint Request for Information )	
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**COMMENTS OF THE PUBLIC BROADCASTING SERVICE**

In order to draw attention to the role of public media organizations as anchor institutions that facilitate greater use of broadband service, the Public Broadcasting Service (“PBS”) submits these comments in response to the Joint Request for Information issued November 16, 2009, by the National Telecommunications and Information Administration (“NTIA”) and the Rural Utilities Service (“RUS”).<sup>1</sup>

In the Joint Request, NTIA and RUS observe that ensuring high-speed connectivity for anchor institutions “can contribute to sustainable community growth and prosperity,” “stimulate the development of last mile services that would directly reach end users in unserved and underserved areas,” and “have a transformative impact on community development by driving economic growth.”<sup>2</sup> PBS agrees that connecting anchor institutions should be a priority in round 2 funding. Moreover, PBS urges NTIA and RUS to encourage public media organizations to apply for anchor institution funding, first and foremost by making

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<sup>1</sup> See Joint Request for Information, 74 Fed. Reg. 58940 (Nov. 16, 2009) (the “Joint Request”).

<sup>2</sup> *Id.* at 58942.

clear that public media organizations are encompassed within the definition of “anchor institutions.”<sup>3</sup>

Public media organizations such as PBS and its member stations are part of the civic fabric of their local communities. Each of the 168 public media organizations that comprise the membership of PBS is locally owned and operated — 87 are community foundations or other organizations, 56 are colleges or universities, 20 are state authorities and 5 are local educational or municipal authorities.<sup>4</sup> Each month, in partnership with its members, PBS reaches more than 124 million people on-air and online.

Notably, public media organizations play a key role in the educational systems of their local communities. Teachers of children from pre-K through 12th grade turn to PBS for digital content and services that help bring classroom lessons to life. PBS’ premier children’s programming and its website, PBS KIDS Online, are trusted partners of both teachers and parents in inspiring and nurturing curiosity and love of learning in children. For example, a recent study by research and consulting firm Grunwald Associates LLC found that a majority of pre-K teachers favor PBS websites over other educational sites. Educational involvement of public media organizations extends to higher education settings as well; the Corporation for Public Broadcasting reports that 68 percent of public television stations have established partnerships with local colleges and universities.<sup>5</sup>

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<sup>3</sup> The Joint Request, by its terms, does not provide an exhaustive list of possible anchor institutions, including instead as examples institutions “such as community colleges, schools, libraries, health care facilities, and public safety organizations.” *Id.* Thus, while nothing in the Joint Request suggests that public media organizations fall outside the definition of anchor institutions, without clarification some public media organizations may be unaware or uncertain of the extent to which they are eligible for funding as anchor institutions in round 2.

<sup>4</sup> Collectively, these 168 public media organizations operate 356 PBS member stations.

<sup>5</sup> See 2008 Annual Report of the Corporation for Public Broadcasting, at 5, *available at* [http://www.cpb.org/aboutcpb/reports/annual/cpb\\_2008\\_annualreport.pdf](http://www.cpb.org/aboutcpb/reports/annual/cpb_2008_annualreport.pdf)

From town hall meetings to teacher training workshops to local programming, public media organizations structure their services to meet the singular needs of their communities. For example, Vegas PBS operates a comprehensive public safety network capable of transmitting emergency response data — such as building blueprints, hazardous material descriptions and locations, and aerial photos of building sites — directly to police, fire, and other first responders in the event of an emergency in the Las Vegas area.<sup>6</sup> The network, which “datacasts” emergency information within Vegas PBS’ over-the-air television signal, was developed in close collaboration with local public safety and school officials.

In the past, public media organizations could achieve their mission primarily through the medium of broadcast television. Today, however, in addition to the broadcast platform, broadband connectivity is essential to meeting the educational and informational needs of local communities. High-speed connectivity enables public media organizations to collaborate with each other, as well as with other anchor institutions, in the creation and delivery of educational, news, public affairs and cultural programming and services.

Examples of how public media organizations are using broadband connectivity, including in partnership with other anchor institutions, include the following:

Thinkport ([www.thinkport.org](http://www.thinkport.org)), developed by Maryland Public Television, is a comprehensive educational portal for Maryland teachers. In partnership with Johns Hopkins University’s Center for Technology in Education, the portal provides teachers with free access to rich, multimedia content and the ability to create customized lesson plans for their students. Research conducted in two Maryland middle schools showed that middle school students who used *Thinkport*’s popular online field trips scored higher on national standardized reading comprehension tests than those who used traditional learning methods alone.

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<sup>6</sup> See, e.g., Testimony of Tom Axtell, General Manager, Vegas PBS before the House Committee on Transportation and Infrastructure, Subcommittee on Economic Development, Public Buildings, and Emergency Management (Sept. 30, 2009), available at <http://transportation.house.gov/Media/file/Economic%20Development/20090930/Axtell.pdf>.

PBS KIDS Island (<http://pbskids.org/read>) provides free reading games and activities for children, parents, caregivers and teachers to use at home or in the classroom; it was designed specifically to meet the needs of low-income and disadvantaged students. Developed cooperatively by the U.S. Department of Education, the Corporation for Public Broadcasting and The Ready To Learn Partnership, and funded by a Ready To Learn grant, the initiative extends efforts to provide engaging and educational content on-air and on-line, paving the way for cross-platform learning as Internet access is increasingly available in homes, schools and libraries.

PBS Teachers (<http://www.pbs.org/teachers/>) is the Web portal designed for pre-K-12 educators to access PBS' educational services and a searchable library of more than 9,000 local and national standards-based teaching activities, lesson plans, on-demand video assets and interactive games and simulations. PBS Teachers is also the gateway for local educational resources and services offered by PBS member stations.

Video in Teaching and Learning (VITAL) (<http://vital.thirteen.org/>), an online service developed by member station Thirteen/WNET, provides customizable, standards-aligned video clips for New York teachers to use in classrooms. The project already has more than 20,000 registered educators, and is attracting an average of 1,000 new educators per month. VITAL's locally-driven approach in creating standards-aligned digital content for classroom use has served as a best practice for states wishing to tailor content to the unique learning needs of their students.

To expand these and other online services to meet growing demand, public media organizations will need substantially more capacity than they generally have available today. By way of reference, on the broadcast platform, PBS, through its satellite interconnect, delivers an average of 120 Mbps of content continuously to member stations, and member stations in turn collectively broadcast over 7 Gbps of content continuously to the American public. Because the Internet is a point-to-point environment and therefore requires substantially greater capacity than broadcasting to serve a given number of people, it would take terabits or petabits of capacity to replicate this volume of delivery in a broadband environment.<sup>7</sup> Member stations today certainly do not have that sort of broadband capacity available to them.

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<sup>7</sup> A terabit is equal to 1,000 gigabits, and a petabit is equal to 1,000,000 gigabits.

Connectivity is particularly a challenge for stations located in and serving rural communities, where public media organizations face the same challenges as hospitals, schools, and other anchor institutions: bandwidth is very expensive and purchasing access from commercial providers at modern institutional speeds may be cost prohibitive. Examples of public television stations serving rural areas include Lakeland Public Television in Bemidji, Minnesota; Southern Oregon Public Television in Medford, Oregon; KIXE in Redding, California; and Smoky Hills Public Television in Lakin, Kansas. Each of these stations has an annual operating budget of less than \$3 million. Stations like these cannot absorb the full cost of connecting to high-capacity networks.

### **CONCLUSION**

Public media organizations have a unique role in serving the educational, informational and cultural needs of the residents of their local communities, and in partnering with other anchor institutions, especially schools. By expressly including public media organizations within the definition of “anchor institutions,” NTIA and RUS will help to create the sorts of “comprehensive communities” envisioned by the Joint Request for Information.

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